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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,881	01/05/2004	Joachim Boltz	R.303403	2097
7590	10/01/2004		EXAMINER	
RONALD E. GREIGG GREIGG & GREIGG P.L.L.C. Suite One 1423 Powhatan Street Alexandria, VA 22314			HOANG, JOHNNY H	
			ART UNIT	PAPER NUMBER
			3747	
DATE MAILED: 10/01/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/750,881	BOLTZ, JOACHIM
	<b>Examiner</b>	<b>Art Unit</b>
	Johnny H. Hoang	3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 June 2004.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) 5 and 8 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4,6,7,9,12 and 14 is/are rejected.  
 7) Claim(s) 10,11,13 and 15-20 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 01 May 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of invention 3, claims 1-4, and 6-20, in paper with the mailing date June 14, 2004 is acknowledged. The traversal is on the ground(s) that search and examination of the application could be made without serious burden. This is not found persuasive because, the examiner has indicated separate classifications of the subject matter of the respective inventions. For purposes of the initial requirement, a serious burden on the examiner may be *prima facie* shown if the examiner shows by appropriate explanation of separate classification, or separate status in the art, or a different field of search as defined in MPEP § 808.02. That *prima facie* showing may be rebutted by appropriate showings or evidence by the applicant. Applicant's allegation that search and examination of the application could be made without serious burden is unsupported by appropriate showings or evidence.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 5 and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper mailing date 06/14/2004. Claim 8 is withdrawn since it depends upon claim 5.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Keiczek (US 4,205,790).

Regarding to claim 1, the patent to Keiczek teaches a fuel injector including the following subject matters:

a nozzle body (1) protruding into the combustion chamber, two coaxial nozzle needles (2, 5), the outer nozzle needle (2) being guided in the nozzle body (1) [see figs. 1-4],

a second nozzle needle seat in the nozzle body (1) for the outer nozzle needle (2) [see figs. 1-4], and

a first nozzle needle seat for the inner nozzle needle (5), the inner nozzle needle (5) being guided in the outer nozzle needle (2) [see figs. 1-4], and

the first nozzle needle seat (4) being disposed in the outer nozzle needle (2) [above rejections and further col. 2, lines 36-68].

Regarding claim 2, the reference of Keiczek further teaches in col. 1, line 31 through col. 2, line 35.

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***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiczek in view of Boecking (US 6,725,841 B1).

Regarding claims 3, and 4, the reference of Keiczek teaches all above claimed invention except a first control chamber, present in the outer nozzle needle, and a closure element cooperating with the outer nozzle needle defines the first control chamber on the other end.

The patent to Boecking teaches a control valve for injectors, which included the control chamber (11), present in the nozzle needle (21), and closure element [see figs. 1-3, and col. 4, line 6, through col. 5, line 48].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the control valve for injection system which including the above limitations as taught by Boecking in the fuel injector system of Keiczek, so as to provide improved method for the present invention which is including the required subject matter, since more information is combined and can be processed more precisely at a higher technology facility.

Regarding claims 6, 7, 9, 12, and 14 as above discussions

***Allowable Subject Matter***

8. Claims 10-11, 13, and 15-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The copies of U.S Patent are provided.

Ishida (US 5,771,865), Keiczek (US 4,202,500), and W. F. Joachim (US 1,834,061).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (703) 308-2782. The examiner can normally be reached on Monday - Thursday (7:00Am-5: 30Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (703) 308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHH  
September 27, 2004

Johnny H. Hoang  
Examiner  
Art Unit 3747

*Willis R. Wolfe*  
Willis R. Wolfe  
Primary Examiner  
Art Unit 3747